Richard S. MacNeish
99.38
Box [illegible] No [illegible]

LEWIS CERAMIC ANALYSIS

Unlike most ceramic analyses, this paper is not only going to give a description of the pottery of a culture(in this case, the Lewis focus), but also present a stratigraphic study of each Lewis level with particular reference to the pottery change that took place during the Lewis occupancy in Southern Illinois. However, previous to the final type of analysis it shall be necessary to undertake a complete analysis of every Lewis potsherd that has been found (about 7,000 sherds) to be a culturally distinct Lewis component. In this initial study the material shall be studied in four main categories: Paste, Surface finish, Decoration, and Shapes. The study will serve to indicate the range of types that occur in each of my main categories. Following this section of the paper, I shall briefly describe the pottery types that occur. The typology will be based on the kinds of surface finish and surface decoration, but the lip decoration and shapes that occur within each type shall be noted. In conclusion, I shall attempt to investigate the various stratigraphic levels of the Lewis culture and determine changes in type that have occurred from one level to the next.

The Lewis ceramic material comes from seven Lewis components. Two of these components have two Lewis habitations, namely Ppo2 and Mxo7. The Lewis levels of Ppo2 are under a series of

Middle Mississippi burial mounds. In the latest Lewis occupancy there was a series of pits in which there were found 2,397 sherds. The lower level contained a charcoal stratum, and series of postholes. In this layer 797 sherds were found. At Mxo7 the top Lewis materials were found on a small mound containing early Middle Mississippi sherds and under two large Middle Mississippi mounds (having had five habitations). In this layer were found 51 sherds. Below this layer 57 sherds were obtained from the floor of a Lewis house. Ppv1A was part of a Lewis village site, and had 2632 sherds at it. Ppv13 was a Middle Mississippi village site at which were found pits that contained layers of Baumer, Lewis, and Middle Mississippi sherds. Only 493 sherds could be definitely determined to have belonged to a Lewis stratum. Ppv31 and Mxv45 were small village sites producing respectively 143 and 181 pieces of pottery. Ppv36 was the site of stone cairns and 72 sherds occurred there. From these nine Lewis habitation levels there were found 6,823 sherds. My study shall be based on these specimens though about 4,000 more Lewis sherds have been found at no ascertainable Lewis occupation at the Kincaid site and in the surrounding area.

Description of Lewis Pottery

Paste (This part of the study is based on a sample of 4,000 sherds).

The color of the paste is for the most part blackish or purplish gray and fades into an orange-red. The above coloration indicated a comparatively poor type of firing control.

The temper of the majority of the sherds is clay grit though crushed rock(quartz) and flint do occur. The tempering material is small, ranging from one cubic milimeter to 3 cubic milimeters. Average rize would be about 1.25 cubic milimeters. The temper occurs in moderate amount, about 7 pieces of temper occurring ineverycubic centimeter of sherd.

The texture of the sherd is fine and dense with a tendency toward having a chalky feeling.

The consistency is good and quite hard, being between 2 and 3.5 in hardness.

The method of making the pottery seems to have been the paddle and anvil procedure, as cross sections of sherds shows no distinguishable coilings, and also, the pottery has an average thickness of 6.5 mm .

Surface Finish

The exterior of vessels show three main methods of finishing, with a number of variations of each main procedure used. The types of surface finish are; paddling the surface with a cord wrapped stick, wiping the surface smooth or by slipping over the surface. Of course, all sherds do show a general

smoothing that may be purposeful, accidental or due to wear; I am inclined to believe this superficial smoothing is due to accidental handling of these vessels when the clay was still wet. The interior of all the vessels, regardless of the exterior surface finish, is smooth, and shows evidence of wiping with a soft fibrous material.

The surface finish which shows cord marking on it is of two varieties. The first type of cord marking appears to have been done with a paddle with between 10 and 25 cords which were placed one next to another. These cords vary in diameter from 1 mm to 3 mm. The sides of the vessels have been randomly paddled and the areas of cords run in every conceivable direction. The second variety seems to be done with a little thought for symmetry. There are usually only about 10 to 12 cords on this paddle and they are uniformly about 2 to 2½ mm in diameter. Also, the cord-wrapped paddle has been pressed against the side of the vessel so that the cord marks are well defined. Also, all the marks of each impression are parallel, and they run in lines from the top to the bottom of the vessel. In both varieties the bottoms of the vessels tend to be smoother and with less distinct cord marks.

The smoothe type of surface finish is mainly one in which the cord marks have been totally wiped off the surface and no impression of the wiping material remains. However, sherds do occur in which, though the cord marks have been obliterated, the impressions of the grass or fibrous wiping material are discernable.

The final type of surface finish is rare, and is one in which a thin ½ mm slip has been applied to the vessel before firing. This slip also is red in color, and often painted red.

Decoration The decoration of the Lewis wares are of four main classes. The decoration on the lip is most common and done by a number of modes. The second type of decoration is done by incising on the neck of the vessel. The last two types of decoration are rare, being that of punctating the neck of the vessels and that of painting the exterior of the pots with a red mineral paint.

In classifying the various modes of lip decoration it seems best to describe them in terms of the techniques by which the decoration was applied.

1. Paddled lips-these lips have been decorated by horizontal paddling with a cord-wrapped paddle. This type of lip shows a tendency toward overlapping on both sides of the rim due to the pressure of the paddle.
2. Smooth and pinched lips- these lips have been smoothed by pinching the upper rim between two fingers so that the lip is brought to a round or sharp edge.
3. Smoothed and flattened lips-these lips have been smoothed by running a smooth instrument along its surface. The pressure of the instrument run along the lip surface caused a slight thickening at the rim and some overlapping of the lip onto the rim.
4. Crenelated lips-a round instrument or stick has been applied horizontally and tangent to the vessel's lip, so that a series of grooves or notches appear to run across it. These groups are spaced about 2 cm apart.

5.Cut lips- a short instrument or sliver like instrument has been applied horizontally and tangent to the surface of the lip so that a series of deep narrow cuts appear on the lip. These are spaced between 2 to 3 cm apart.

6.Lips notched from the side- these lips have been punched just below the exterior edge of the lip by a blunt tubular instrument that has either been applied, to the lip, horizontally tangent to the vessel or vertically from below the vessel. The notches are about 3 cm apart.

7.Punched lips- the punching has been applied to the lip by a round blunt stick pushed down from above the vessel. The punchings are placed about 1½ to 2 cm apart and the rim of the vessel expands due to the space taken in the rim by the hollow punches.

The incised decorations which appear on the neck are of a number of types. One type of incised decoration has been made over a cord marked surface. This incising is on the neck and usually in the form of a series of bands parallel to the vessel mouth. It is either done with a stick about 3 mm in diameter or done with a cord marked stick. The second type is almost the same as the first except that it is done over a smooth surfaced vessel. Also, the parallel incised lines are always done with a stick. The last two types of decoration are not totally discernable as the

sherds are too small to show the complete decorative motif. Both these types of decoration are on the necks of smooth vessels. The decoration of both types is done with a stick about 2 mm in diameter, and the incisions are about 1 mm deep. One type of decoration consisted of areas covered with parallel incising in a currvilinear pattern possibly forming scrolls. The other type consisted of incised lines that seem to make up some sort of rectilinear pattern of incised squares, rectangles, or triangles.

The seven sherds that show punctate decoration may have been trade sherds. The punctate appears to have been on the necks of the vessels. One specimen shows punctates parallel to an incised line and may possibly have been in a zone bounded by an incised line.

The painted sherds are rare but appear at most of the sites. The painting, for the most part, was done over the whole slipped surface. One sherd shows fine lined incisions over the painting. About 30 sherds were found. Also found were about six sherds in which a vegetable red paint or fugitative red paint had been applied to a cord marked surface.

Shapes

In discussing the types of shapes of vessels I shall briefly mention the range of features that occur with in every type of the total shape(that is, the range of shapes that occur on the rim, neck, shoulder, bodyand base. I shall, however, not mention the plate forms in the above discussion. Following the above discussion I shall briefly describe each of the types of vessels forms that do occur. The drawings of rim cross sections and reconstructed vessel forms which are on the following pages will, of course, describe more graphically the shape than merewords.

Bottoms

Bottoms of vessels are uniformly sub-conoidal. In the materials we were able to reconstruct the bottoms of vessels. All were sub-conoidal. However, the body and rim shapes of some unreconstructable vessels seem to indicate that globular bottoms did occur.

Bodies

The bodies of Lewis pottery seem to show quite a little variation. Some were almost straight sided and the bodies cylindrical in shape. The majority of body sherds curve somewhat, but still the bodies are not round or globular. In fact, these bodies were about half way between being round and cylindrical. A few bodies were definitely globular.

Shoulders

Shoulders are almost non-existent and when they do appear are curved and represent merely a rounded break between the body and the neck.

Necks

Necks are not common and exist on only about 30 sherds. Even these necks are sloping inward toward the mouth and are more funnel shaped and cylindrical than anything else. Also, the necks are uniformly short (about 2 cm in length).

Rims

The rims vary between being slightly outflowing to those that are definitely in curving rather sharply. Most of the rims are slightly in-curving. The rims are usually thinner as one goes toward the mouth, but decoration on the lip may cause them to be thicker right below the lip. A few specimens show definite thickening at therim caused by the application of a small band of clay from the lip down onto the exterior of the rim surface.

The shapes have been found to have been of six main varieties.

1. Tampico Shapes These vessels have a straight neck, rounded shoulder, slightly curving body and a sub-conoidal base. Generally, they are small in size, holding about two quarts.
2. Woodland Shapes The rims are slightly in-curving, the shoulder appears only a very slight break about 5 cm down from the mouth, the bodies are slightly curvate, and the base is sub-conoidal. These are large in size, holding from 2-4 quarts.

45L2 — 9 ([illegible] II), 10 ([illegible] II), 11 ([illegible] II) 11 [illegible]

12

50L2 ⑪ Lewis ⑫ sterile clay ⑬ undisturbed and charcoal

55L2 ⑩ ⑪ Lewis ⑫ Lewis & sterile ⑬ sterile, charcoal

60L2 ⑩ Lewis ⑪ Lewis below FX ⑫ sterile
⑬ sterile & charcoal

45L2 9 — II — 10 — II 11 [illegible] 12 [illegible]

~~45L3~~ 45L3 9, 10 Lewis, 11 middle of Lewis — 12 buff & charcoal & below

50L3 ⑩ Lewis ⑪ Lewis below FX ⑫ sterile and charcoal
⑬ charcoal & undisturbed

55L3 ⑩ Lewis ⑪ Lewis below FX & sterile ⑫ sterile charcoal & undisturbed

65L3 ⑧ ⑨ Lewis ⑩ sterile ⑪ sterile & charcoal

65L4 ~~[illegible]~~

Level 10 Lewis, 11 Lewis [illegible], 12 [illegible]

[illegible] S205 Badly mixed [illegible] charcoal [illegible]

Features Xc, d, e — level III
F Xa, b — ~~level I~~

605

— Check on 642
60L2
D. D. P. 4

p 147 — layer 9 — Fb

59L — 59? all in F. X & below

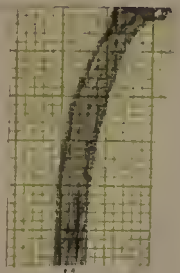
M605

E. Trench

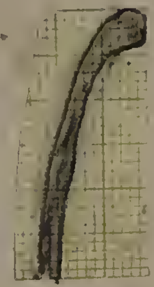
Lewis Seed bowls —

Pp°2

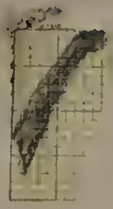
bowls with fold on the interior of the lip



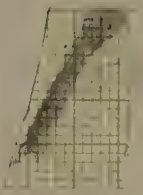
Pp°2
P48
surface finish
cordmarked



Pp°2
P380
surface finish
smooth
diameter-18cm

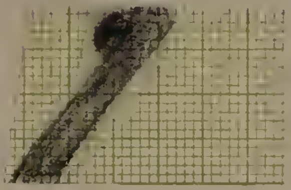


Pp°2
P471
surface finish
smooth

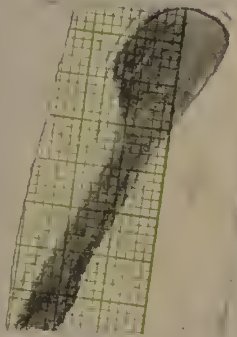


Pp°2
P457
surface finish
smooth

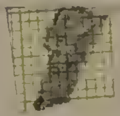
bowls with fold on the exterior of the lip with shapes indicated



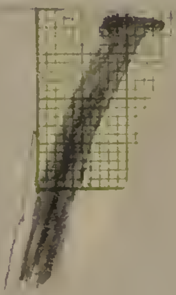
Pp°2
P1066 — 2
surface finish
Red slip
diameter-16cm



Pp°2
P148
surface finish
Red slip
diameter 18cm

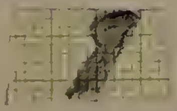


Pp°2
P388
surface finish
smooth

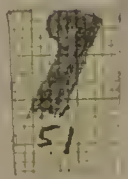


Pp°2
P375
surface finish
smooth

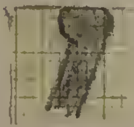
bowls with fold on the exterior of the lip without shapes indicated



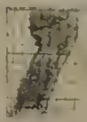
Pp°2
P890
surface decoration
smooth



Pp°2
P51
surface finish
smooth

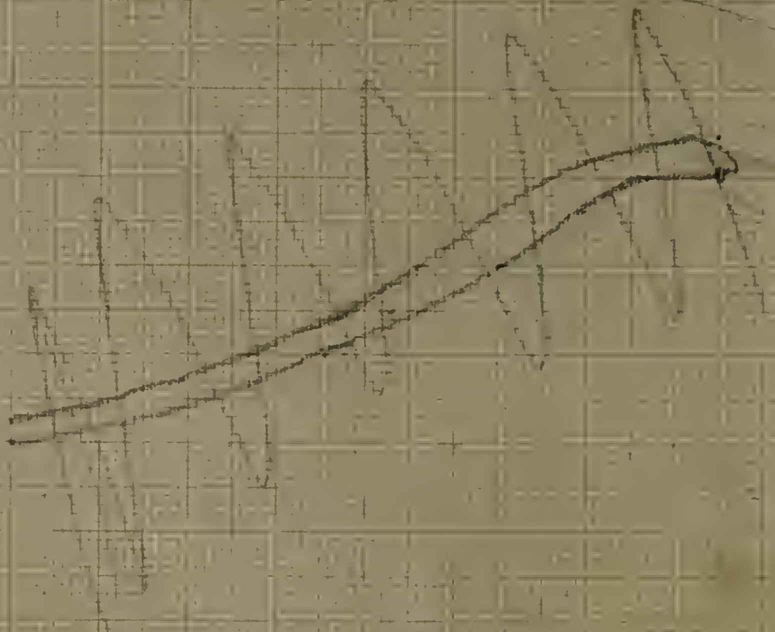


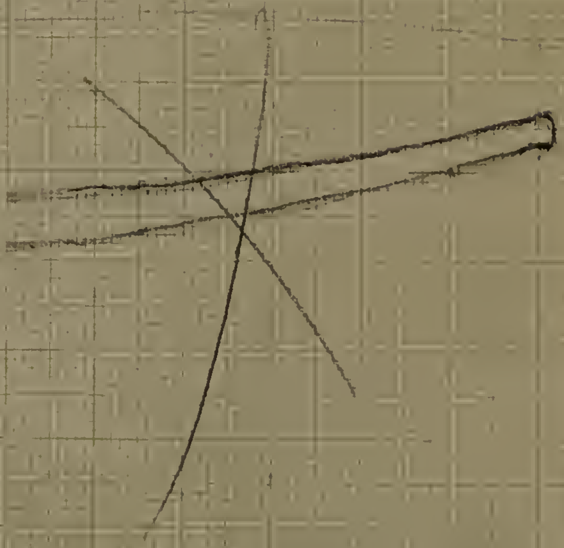
Pp°2
P312
surface finish
smooth



Pp°2
P48
surface finish
smooth

1 11 - 234 - 30
6 1223 - 23
[illegible]
2 617 — 24
124 616
2 1643
2 109 (1381 24
4 109 1070 20
4 110 1342 26
110 - 1242 - 18 cc
(2) 111 - [illegible] - 20 cc
2 111 - olla like [illegible] - 22 cc apart
2 AP 762 - 250 - 24 cc apart
4 110 - 1243 — 22 cc apart
3 more watermelon very thick 109 1339 — 28 cc apart
4 111 - [illegible] 32 cc apart
2
757 ~~watermelon~~ 24 cc
8 159 - [illegible] "
8 ——— 18 cc
3 or 4 ——— 33 cc
3 24 ——— 18
4 111 - 152
1





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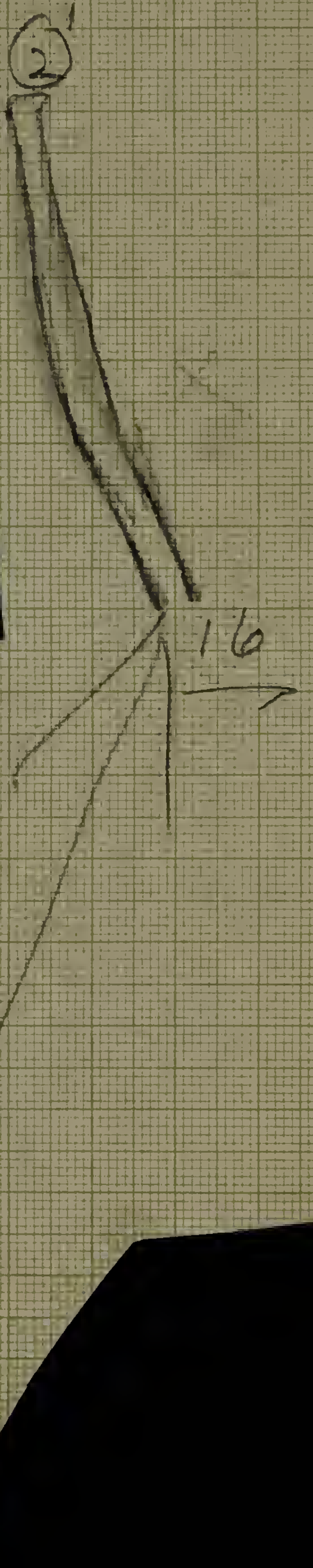
Leaf cut
sweet corn
26-7-32



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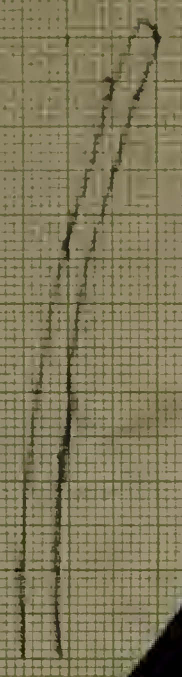
111 — 48/375 cord m'k'd 109-121 1143



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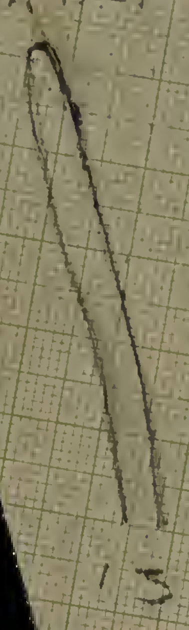
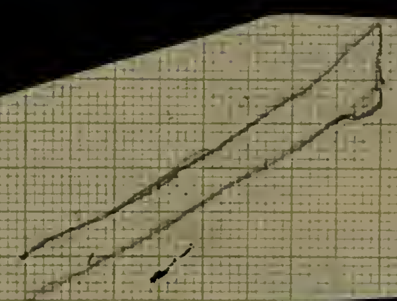
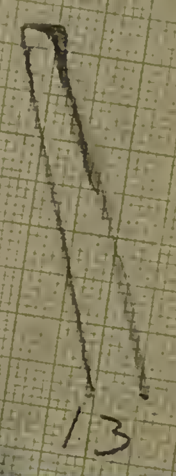
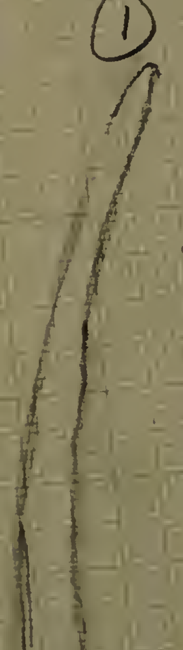
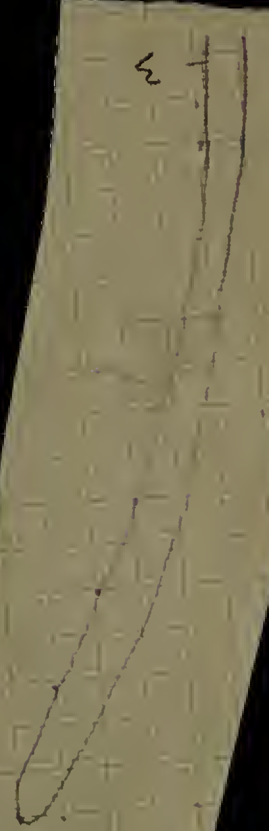








6
5-134
110
Lip punctated & smooth
lower cord impressed



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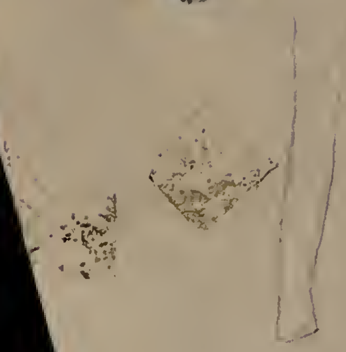

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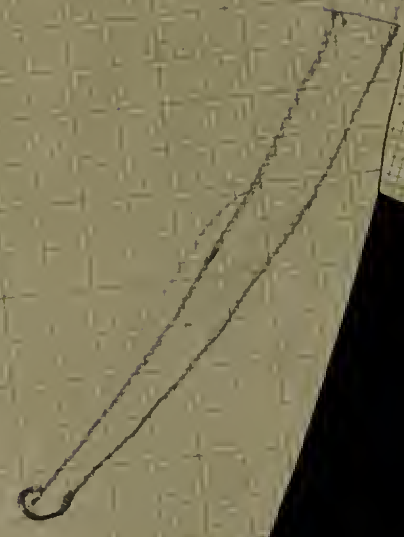

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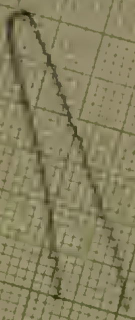

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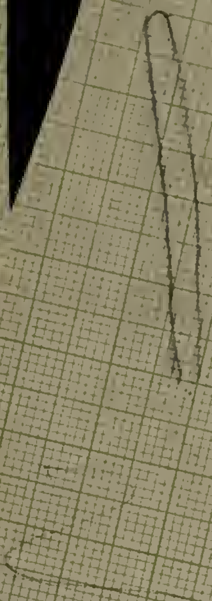

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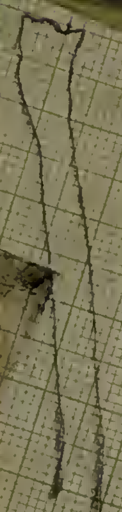

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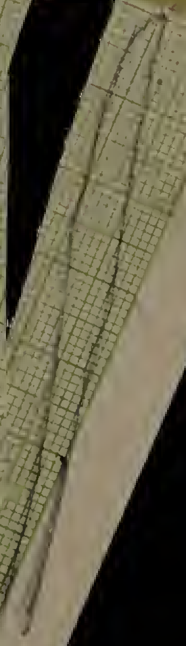

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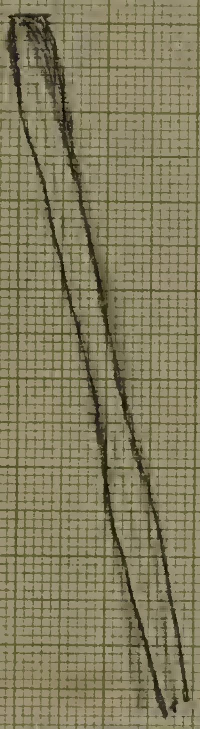
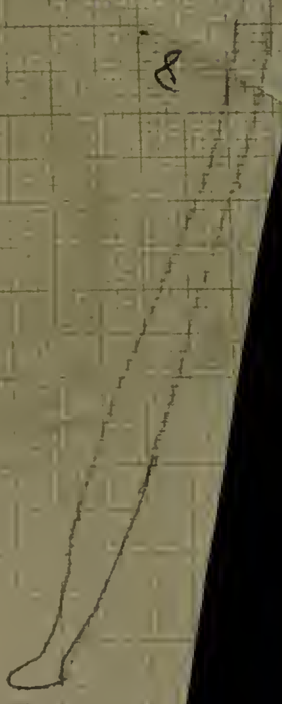
766-1
519-2
Coral marking
[illegible]
6C-32



4 116-1547)
smooth & flat

8

④



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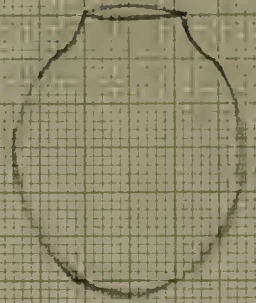
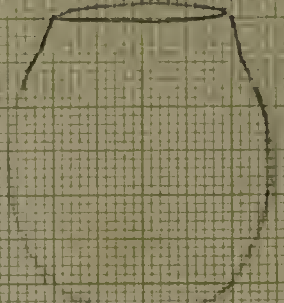
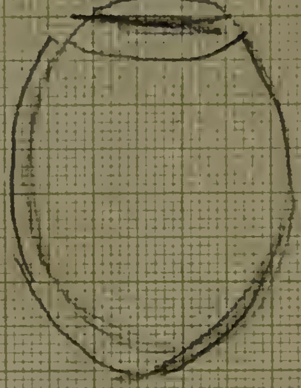
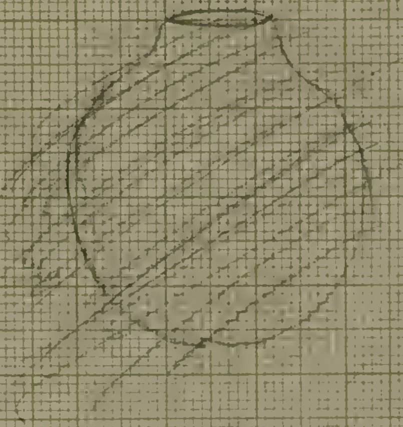
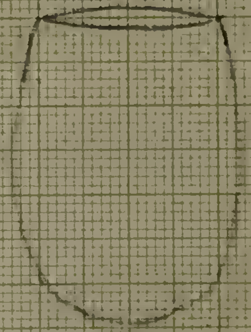
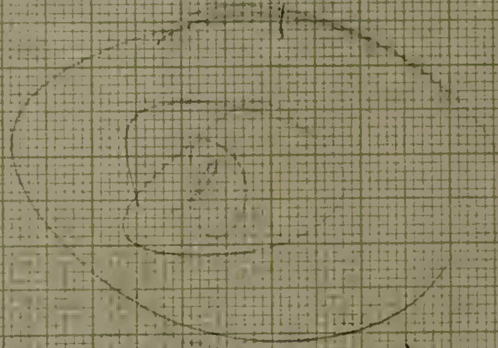


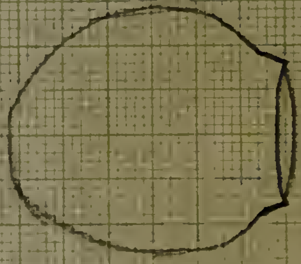












~~1 — 5 — 12~~

2 3 6 8

4 7

9 10 11

1- 1—16— [illegible] —12—5

14

2 sheets

X -9-10-11 3 under Lewis rim sherds - last to fit under previous

3

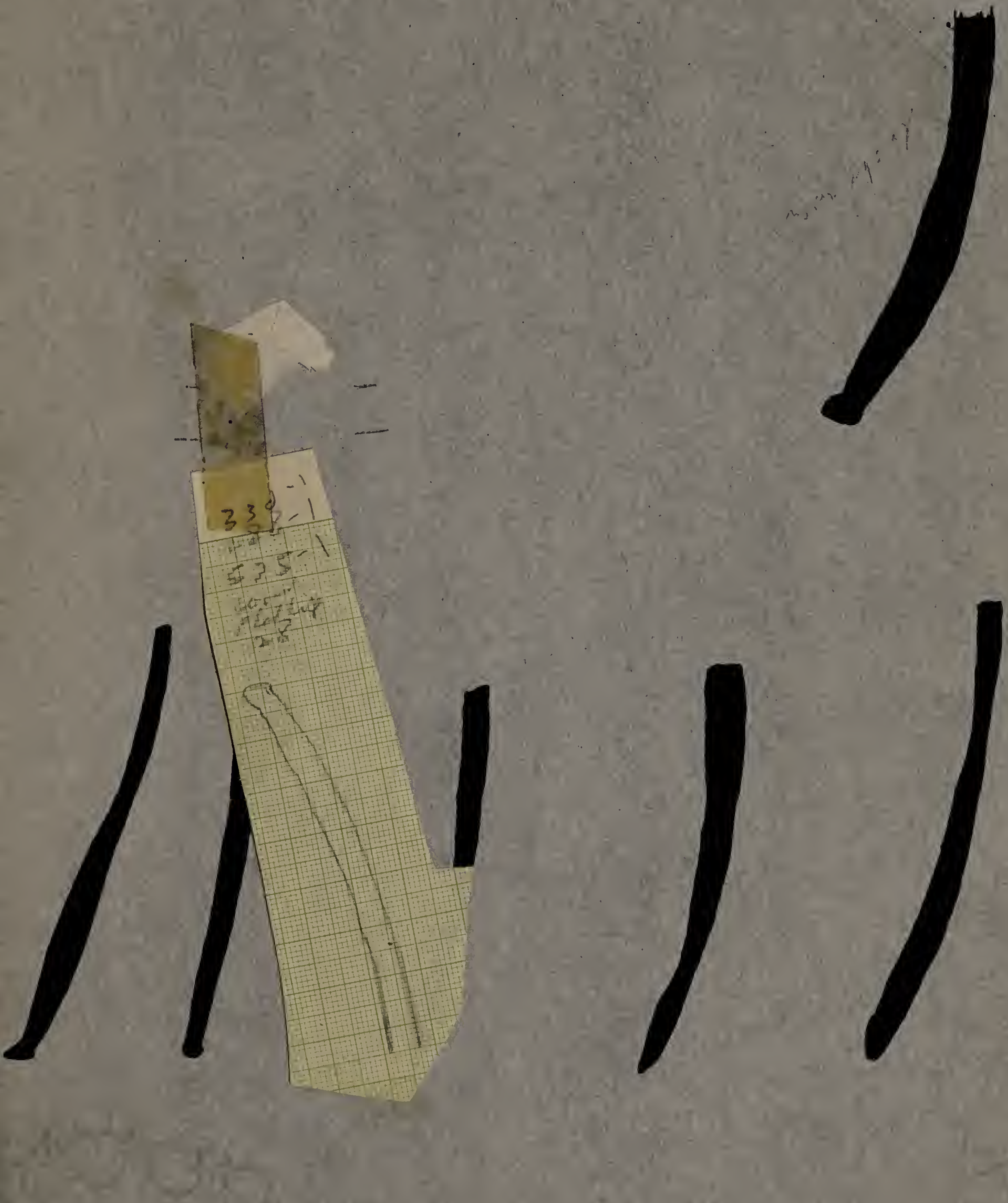
44/6333 72-4456

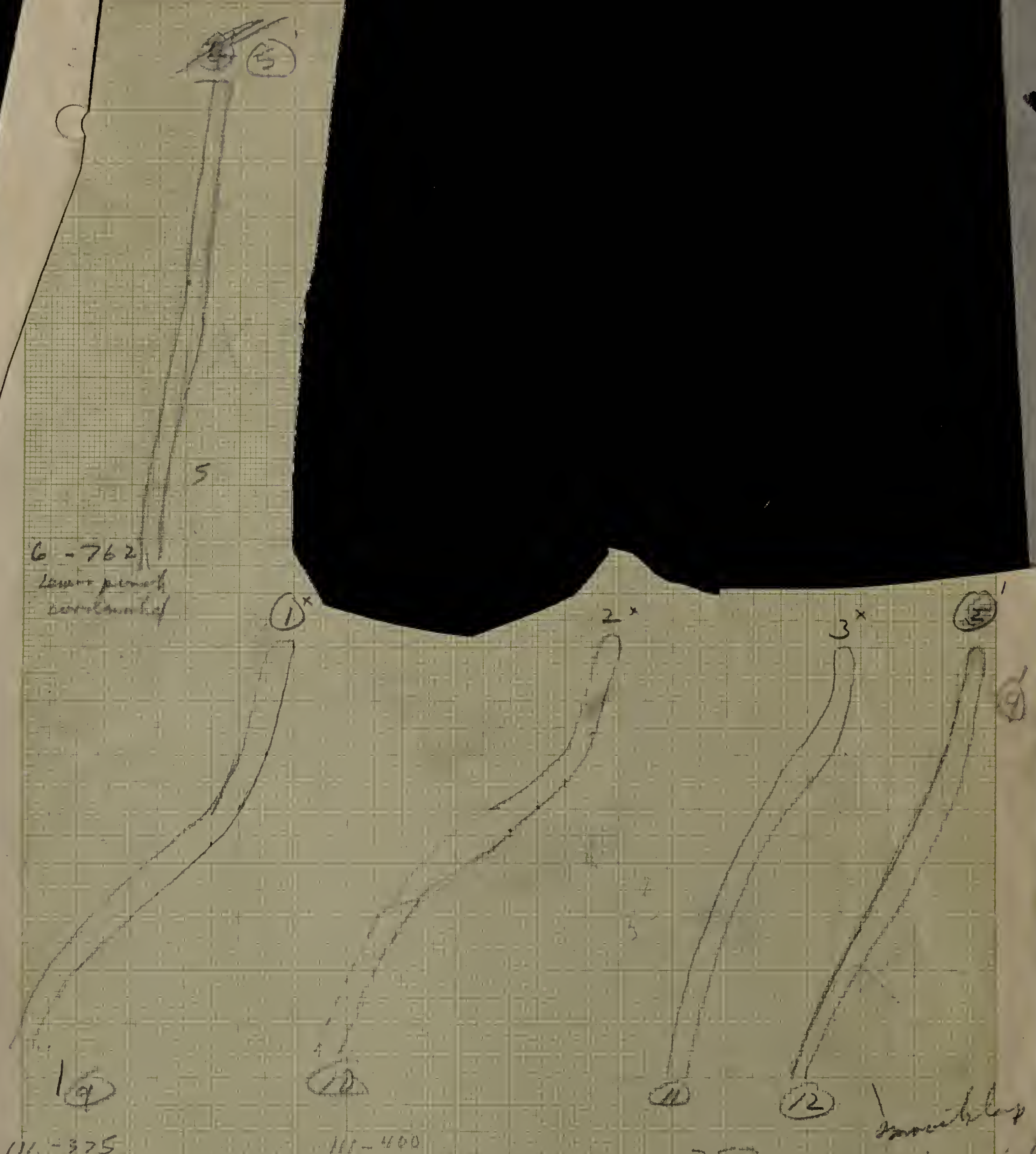
Form No. 996—10 Millimeters to Centimeter
AMERICAN PAD & PAPER CO., HOLYOKE, MASS.

Problem 2 - Ekholm's Tancol material definitely resemble the Hopewell materials though of too early a date. However, there may be later Tancol materials or Tancol materials may not be as early as he thinks them to be

	[illegible]	Higgsvill[illegible]	11	12	Carbondale	I	[illegible]	[illegible]	Campbell	Browns[illegible]	[illegible]	[illegible]
GENERAL TRAITS												
1 Sites along the edge of a river	X	X	X	X	X		X			X		
2 Fire cracked stone in the debris	X	X	X	X		X	X			X	X	
3 Caches of mortars & pestles or grinding stones	X	X	X	X								
4 Hearths of fired clay			X			X	X			X	X	X
5 Midden pits throughout the site	X	X	X	X	X	X	X			X	X	
BURIAL TRAITS												
6 Burials in village midden			X	X			X			X	X	
7 Burials in small pits	X	X	X	X						X	X	
8 No burial furniture							X			X	X	
9 Flexed burials	X	X	X	X			X			X	X	
10 Semi flexed burials	X	X	X	X			X			X	X	
Artifacts - Stone												
11 Bannerstones	X	X	X		X		X			X		
12 ~~Stemmed points~~ (long narrow)	X	X	X	X	X	X	X	X		X	X	X
13 " " (flaring stem)	X	X	X	X	X	X	X			X	X	X
14 " " long stem	X	X	X	X		X	X	X		X	X	X
15 long side notched points	X	X	X	X							X	X
16 large triangular points	X	X	X	X		X	X			X	X	
17 concave base fluted points						X						X
18 winged drills	X	X	X	X		X	X			X	X	
19 straight drills	X	X	X	X		X	X			X	X	
20 expanding based drills	X	X	X	X		X	X			X	X	
21 triangular drills	X	X	X	X		X	X				X	
22 small nose gouges (chipped celt)						X	X			X	X	
23 stemmed thumbnail scraper	X	X		X		X	X				X	
24 plain thumbnail scraper	X	X	X	X				X			X	
25 large triangular knives	X	X	X	X		X	X	X		X	X	
26 manos & metates						X					X	
27 anvils (mortars)	X	X	X	X			X			X	X	
28 Pestles	X	X	X			X	X			X		
29 Hammerstones	X	X	X	X		X	X			X	X	
30 Red ochre	X	X				X	X				X	
31 Flake scraper [illegible]	X	X	X	X		X				X	X	
bone												
32 bone atlatl weights			X									
	25	11	21	13	7	19	23	[illegible]		23	29	

33


339-1
335-1
[illegible]



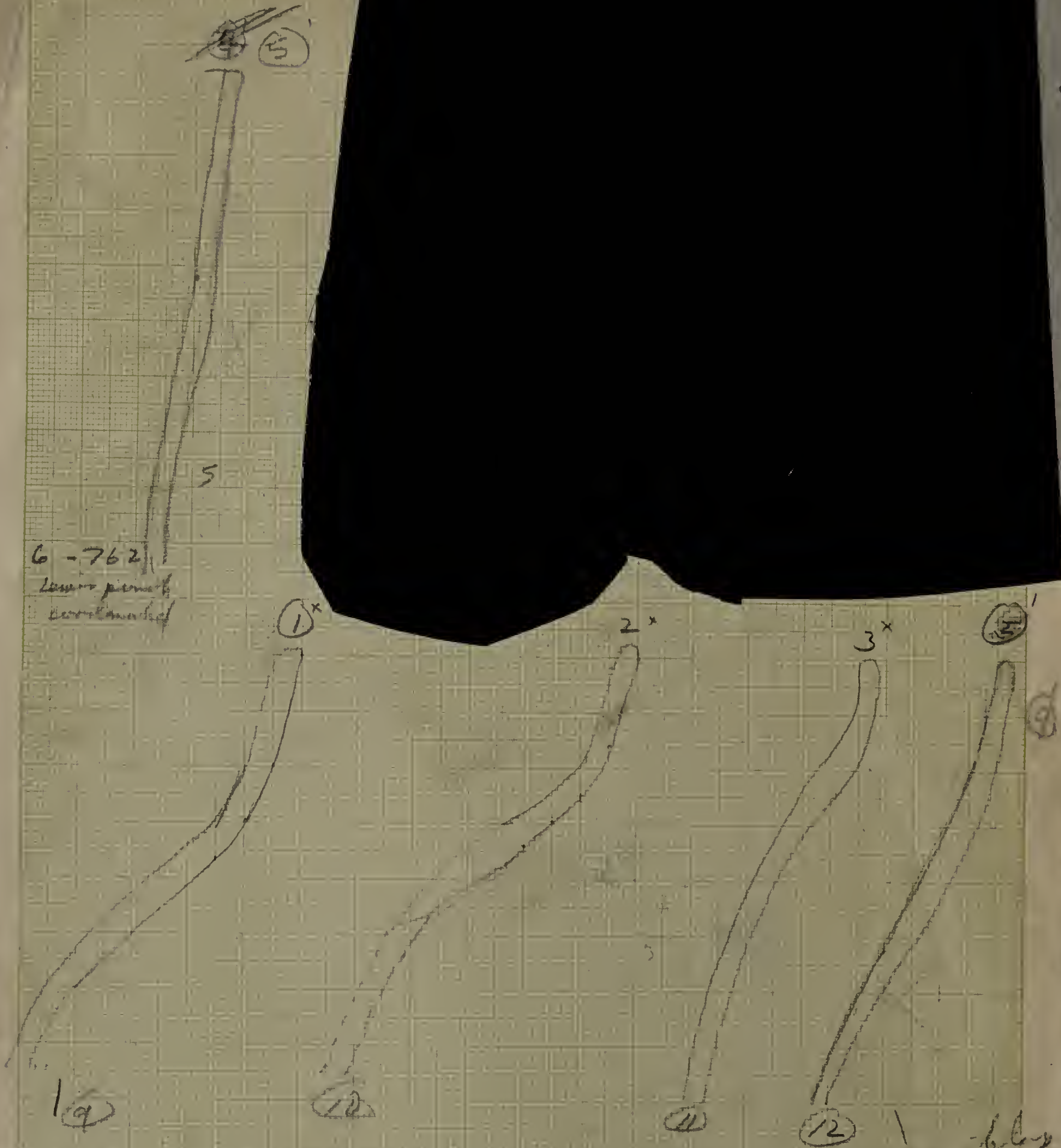
6 - 762
Lower point
[illegible]

111 - 375
pointed tip
C. marked

111 - 400
2 ~~[illegible]~~
[illegible]
[illegible]

757
7 [illegible]
[illegible] tip
[illegible]

[illegible] tip
2 - 24
[illegible]



111 - 375

pointed tip

C. marked

111 - 400

~~2 ape~~

pointed tip

Also C. m.

757

7 [illegible]

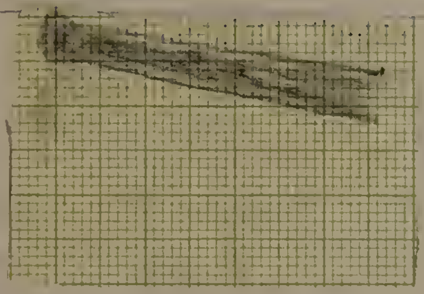
[illegible] tip

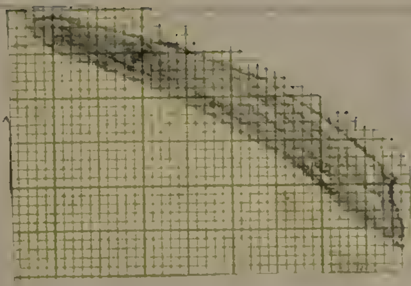
[illegible]

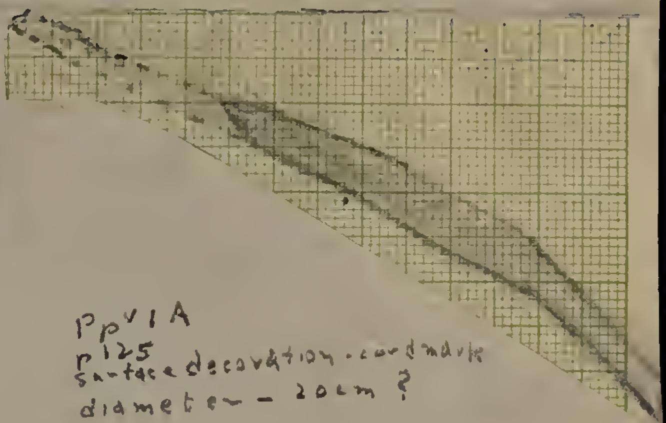
3 - 24

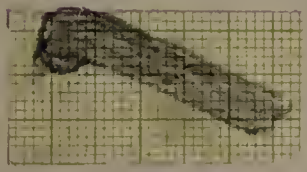
unmarked

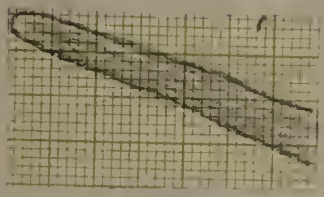
Lewis Plates

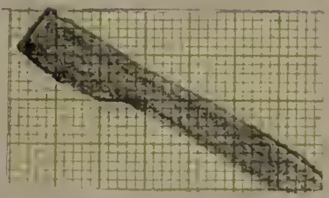

Pp^{v}IA
P753
surface finish - cordmarked exterior
lip decoration - crenelated
diameter - 20cm.

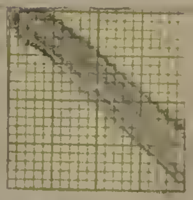

Pp^{v}IA
P110
surface finish - smooth
lip decoration - crenelated
diameter - 22cm


Pp^{v}IA
P125
surface decoration - cordmark
diameter - 20cm ?


Pp^{o}2
P189
surface finish - cordmarked
lip decoration - crenelated
diameter - 26cm


Pp^{o}2
P384
surface decoration
cordmarked
lip decoration
crenelated
diameter - 20cm

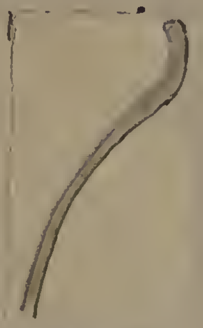

Pp^{o}2
P360
surface finish
Red slip
lip decoration
smoothed
diameter 28cm


Pp^{o}2
P225
surface decoration
cordmarked
lip decoration
crenelated
diameter - 22cm

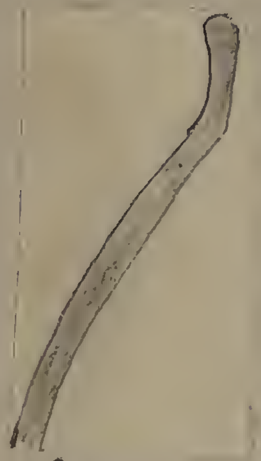
Olla shapes – Pp°2

Pp°2

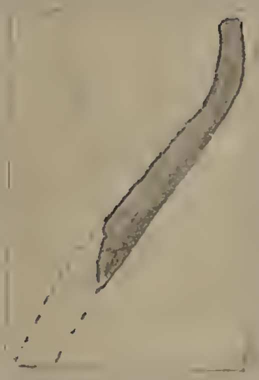
Rim sherds



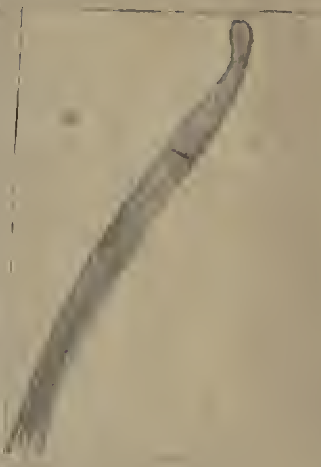
Pp°2
P 778
surface decoration
incised
Lip decoration
punched
diameter – 14cm



Pp°2
P 310, 330-3, 357
surface decoration
incised
lipdecoration
punched
diameter – 16, 19, 16

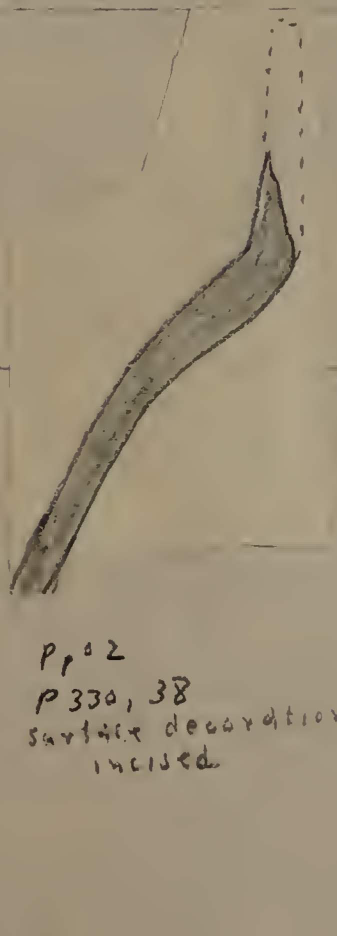


Pp°2
P 956
Surface decoration
Trailed over
cordmarked
Lipdecoration
punched
diameter – 22cm

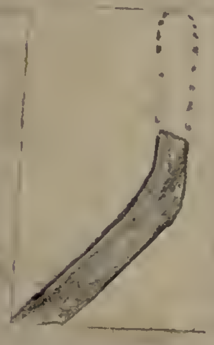


Pp°2
P 380-2
surface decoration
incised
lip decoration
punched
diameter – 18

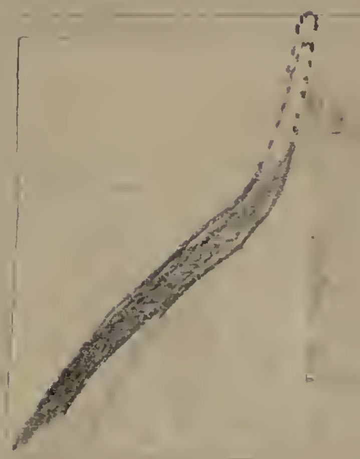
body sherds



Pp°2
P 330, 38
surface decoration
incised



Pp°2
P 360, 1065
surface decoration
incised



Pp°2
P 48, 3
surface decoration
incised

3.Cocoanut Shapes The rims are in-curving, the bodies slightly curving, and the bases sub-conoidal, almost pointed. These vessels are very large holding about 4-6 quarts.

4.Seed Bowl Shapes The rims are in-curving and often thickened, the bodies are globular and often round; the bases probably round. (I say probably round, since no bases were found, but the bodies indicate a rounded spherical base.)

5.~~Bomb~~ Jar Shapes The rims are in-curving and thinned, the body straight or very slightly out-curving, and the base sub-conoidal. These would hold 3-4 quarts.

6.Plate Shapes These plates have almost horizontal rims, slightly flared with a slight break between the rim and the shoulder. Bases have not been found. The bases may have been rounded as evidenced by one body piece.

In summary of the description of the Lewis sherds I offer this following table which indicates the ranges of the features in terms of the polar features and mean or average features.

A. Paste	Mean
1. Temper range	
quartz to sand to grit	grit
2. Texture	
grit to fine 96%	fine
3. Hardness	
2 to 3.5	3
4. Thickness	
.25 cm to 2 cm	.72 cm
B. Surface Finish	
1. Cord impressed to cord marked to grass marked to smooth to slipped	cord-marked
C. Decoration	
1. Neck	
Incised rings over cord marked to rectilinear designs over smooth	incised over cordmark
2. Lip	
Punched and smooth to cord marked to crenelated to punched	smooth and punched or crenelated
D. Shape	
1. Plate--eccentric form	
2. Bomb form to cocoanut form to Woodland form to Tampico form	Woodland Form

exp type	sp	st	t	p	ca	c	sn	pure
Pp v 13-19	53%	10%	4%	4%	0	20	4	10
Pp ° 2-116	~~25%~~ 24	~~18%~~ 19	8%	11%	27%	24%	27%	20%
Pp ° 2-46	31%	2	0	6%	19%	32%	9%	4%
Pp v 1A-95	27%	7%	0	24%	14%	16%	8%	23%

46

19)10.00 .53
95
50
7

19)1.00

19).20

95)7.00

116)23.00 19
116
1140

46)2.00 5

46)3.00 7

~~116)36.0 31~~
~~348~~
~~120~~

116)26.0 23
232
280

116)2.00 1

116)24.0 2
232
~~80~~

116)28.0 24
232
480

46)15.0 32
138
120

116)22.0 18
116
1040

95)2.60 27
190
700
675

)13.00 .11
116
140

95)14.0 14
95
450

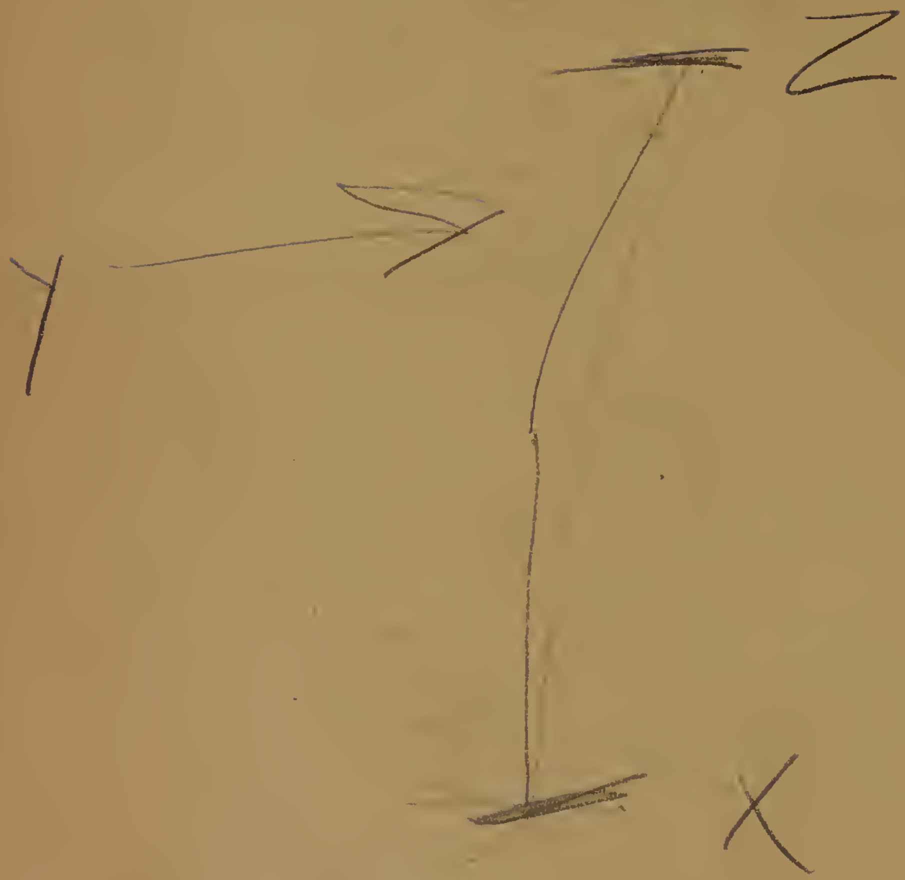
116)10.00 .09
26

95)22.0 23
190
300
285

95)9.00

95)14.00

95)22.00 23
190
300


Z
Y
X

		SH	CT	G	S	I	F	[illegible]
M·27	52	65%	6%	0%	25%	2%	0	4%
Pp·02	2399	63%	7%	7%	18½%	2%	¼	1¾
Pp 13	493	65½%	5½%	5%	21½%	¾%	1½%	
Pp·2	797	64%	6¼	7%	23½	0	[illegible]	[illegible]
Pp·1A	2632	61%	7%	9%	21½	0	¼	½
Pp·31	143	77%			19%	0	1½	
Mx·45	181	64			16%	0	1	
Pp·36	72	54			31%		2½	
M·07	57	70			22%	0	0	

$72\overline{)200}$ 2

$181\overline{)100}$ 1

$57\overline{)124}$ 21

$52\overline{)3400}$ 65
312
260
260

$52\overline{)130}$ 2
104
260

$52\overline{)30}$

$72\overline{)100}$

Pottery traits

grit tempered
Texture medium
Hardness 2.5 / method of manufacture
paddle & anvil
surface finish - cord roughened
Decoration - on lip
occasionally on rim by incising
Shape - conoidal
Tampico
Woodland

30

𝍸 out of 8

I PM PH ~~G~~

⑯ 17 Oct 41 | 170

Porter Heights Ingraham [illegible]

Sites on bluffs.

Small site

Hunting economy

Fire basins

Flaring stemmed points

Plummet stone.

Discoidals

[illegible] ~~[illegible]~~ beads

Multiple burials.

Burial under earth mounds.

Flexed burials

Double burials

Burial in pits

No grave goods.

Grave goods of stone

~~Burial under slabs~~

Pp^3

Pp 1 - flaring stems

41 — J — L — 26 — 131

51 — I — PH — 27 — [illegible]

48 — I — PM — 26 — [illegible]

48 — L — PH 18 — 138

[illegible] — L — PM 20 — [illegible]

57 L — PH 20 — [illegible]

51 I PM

PM	I	L	PH
[illegible]	51	47	[illegible]
54	50	51	[illegible]

	56 —	P —	C — J —	W —	T
13 — Pp 413 —	10	8%	23	28	30%
70 — Pp 02 —	17%	5%	12%,	16%	56%
68 ~~21~~ — Pp VIA —	0	4%	30%	26%	19%
5 — Pp ·2 —	0	25	50	25	0

8
12)100
96

84)300

2
13)30
26
40

38
13)5.0
39
110

40

17
70)120
70
500

70)40

5

1
70)800
1

1
17
5
12
10
44

1
68)120
68

2
68)14.00
136
40

68)300

5
4
68)350
0

~~3~~6
68)18.0
13.6
440

68)1200

83, pg 22

$\frac{[illegible]}{14+16}$ ✓ $\frac{12}{11}\,\frac{[illegible]}{36}$ pg 37 $\frac{3}{12}+\frac{2}{20}$

[illegible] $\frac{3}{8}$ $\frac{13}{17}$; pg 41 $\frac{21}{8}$ pg 27

$\frac{15}{5}$ −pg 33 [illegible] −32 $\frac{17}{12}$

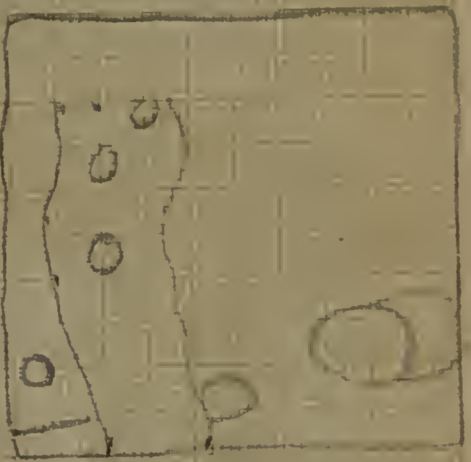
$\frac{[illegible]}{17}$ 33 $\frac{6}{17}$

$\frac{13}{13}$ [illegible] $\frac{6}{[illegible]}$ − [illegible] 7

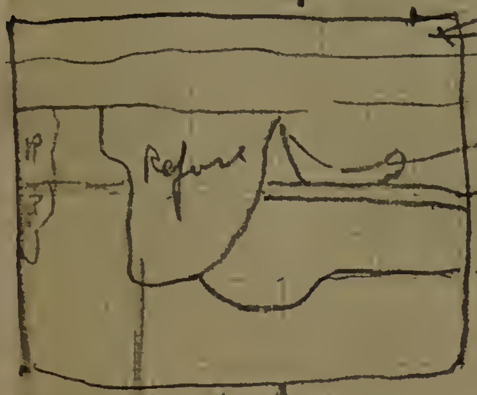
$\frac{8}{[illegible]}$ pg 33 [illegible] $\frac{21}{8}$ pg [illegible]

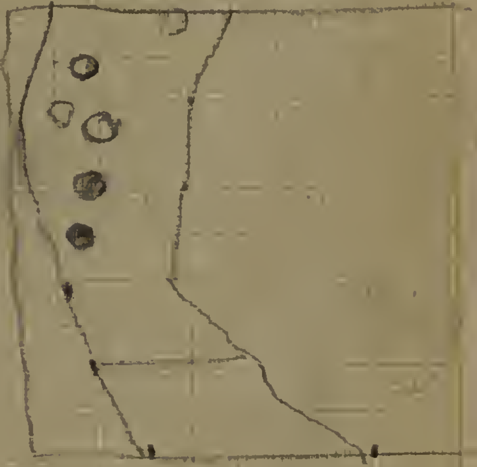
$\frac{14}{3}$ [illegible] $\frac{8}{[illegible]}$ $\frac{20}{3}$ 13

Level 6

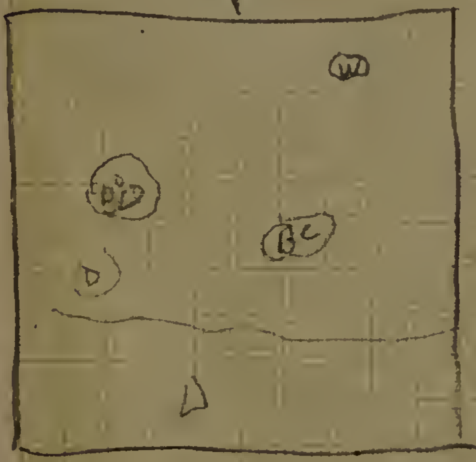


Profile Cont. of 22

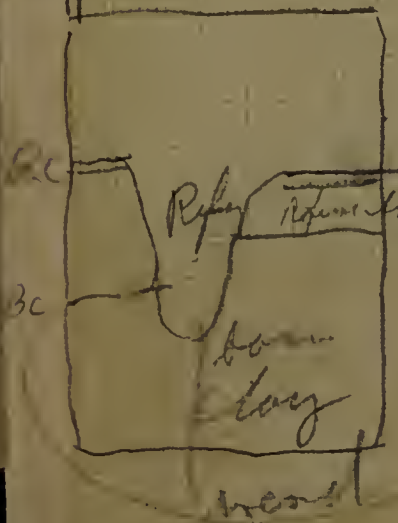




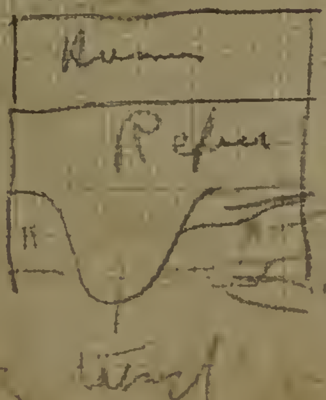
Sq 22 - level 1 (6 inch [illegible]



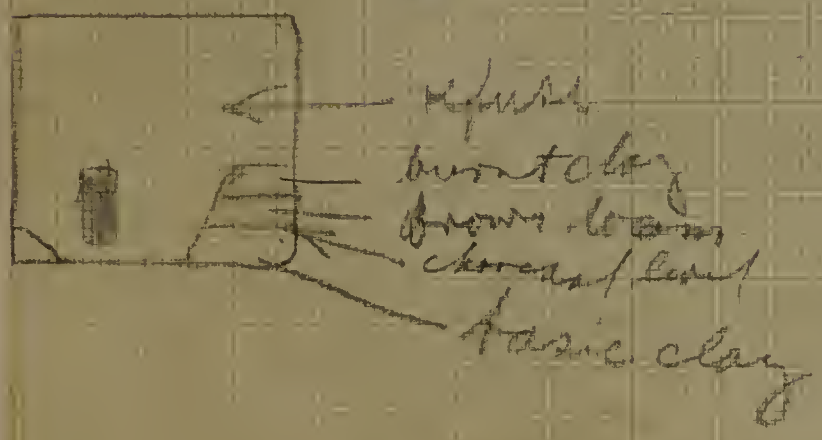
Profile at ~~West~~ of #2 by 1 foot in sq 22



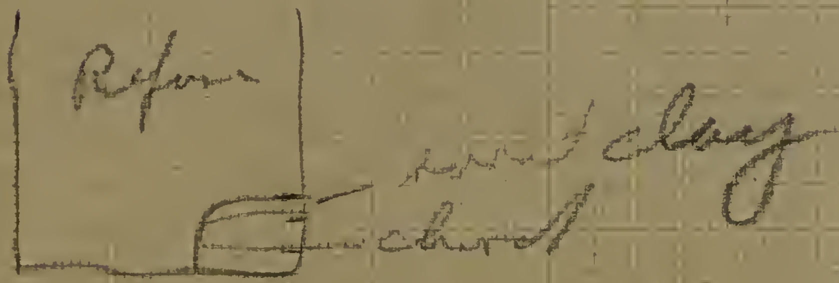
Profile at ~~West~~ of #2 by 2 feet in sq 22



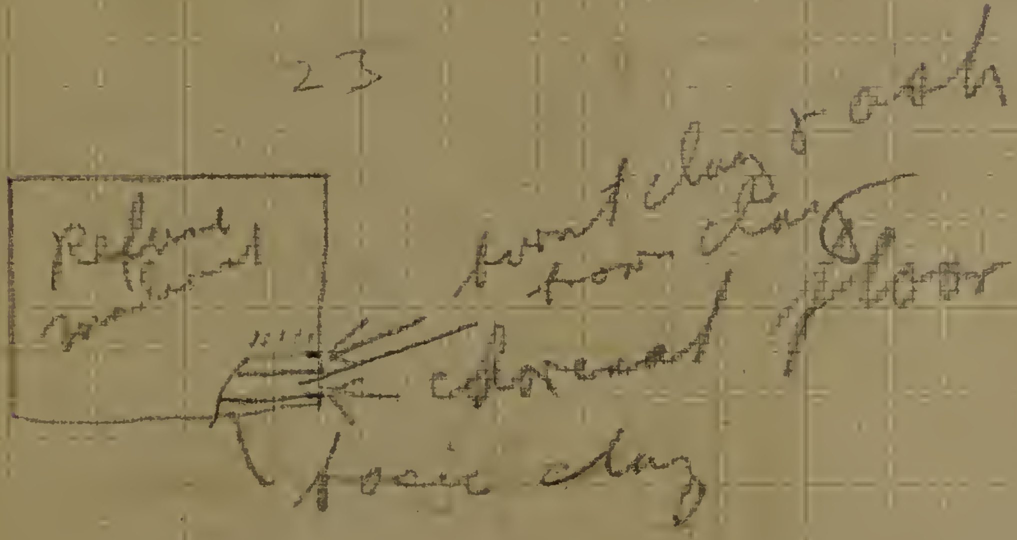
#2 apsis + 3 ft in sq 22 in bone 80
Pict



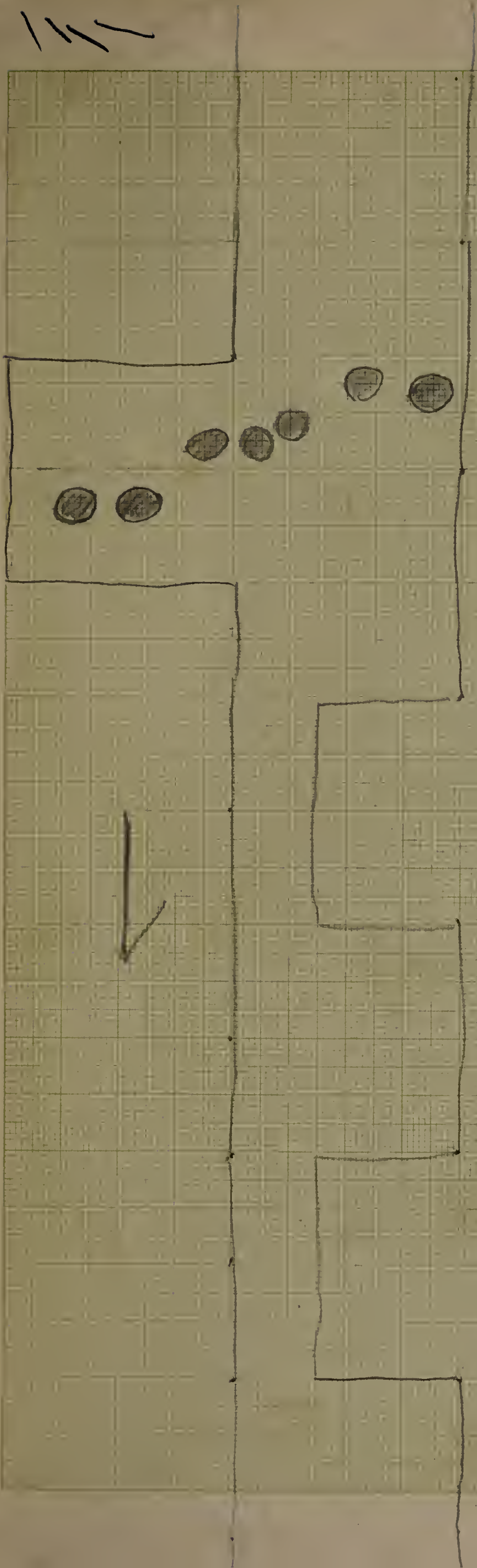
2 apsis + 4 ft in sq 22 in bone 8

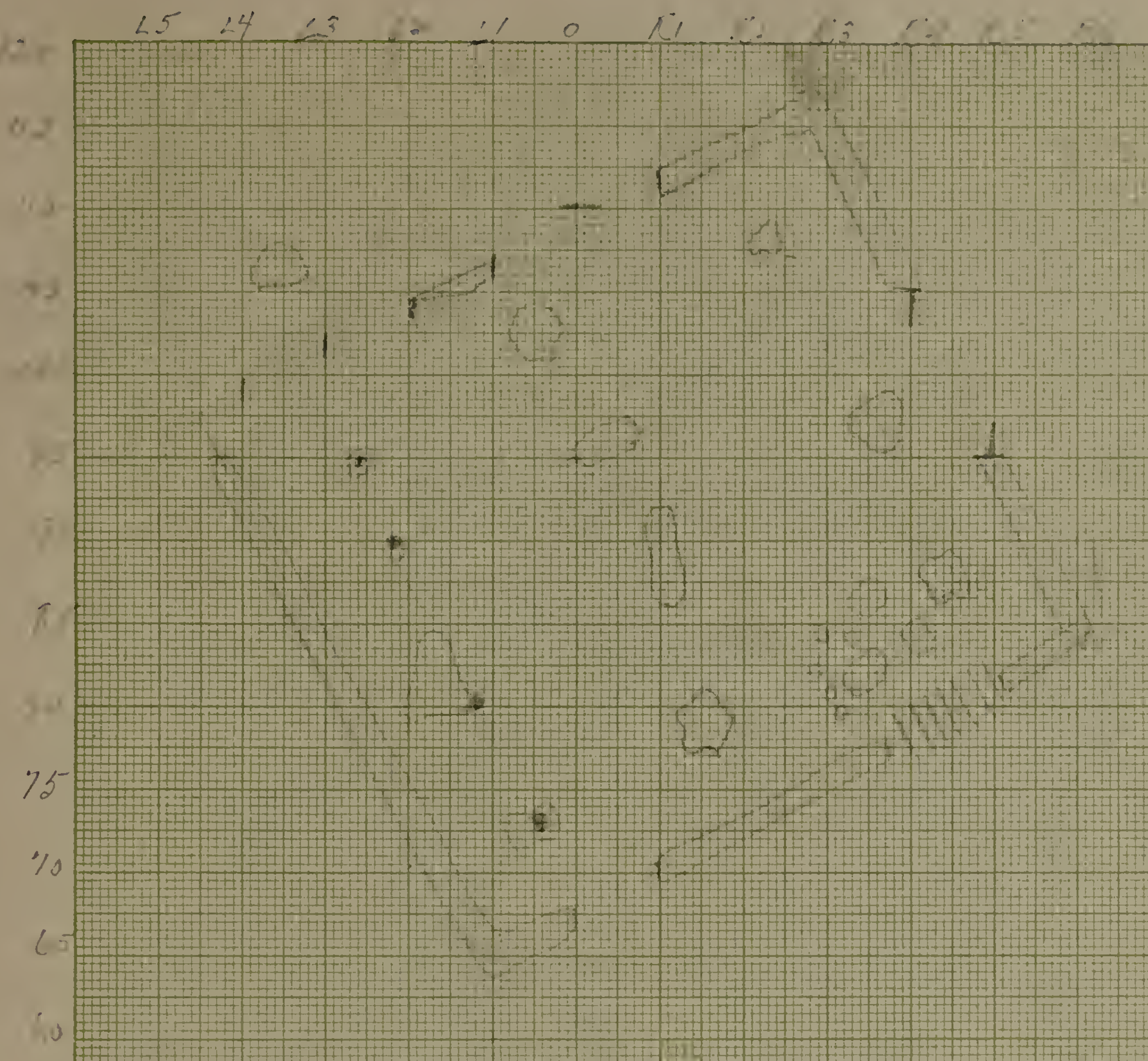


23



Oh, please sing to me





Form No. 996—10 Millimeters to Centimeter
AMERICAN PAD & PAPER CO., HOLYOKE, MASS

Item I

Item I

Items 2

	Level 3	Level 2 P:52	Pp 13		[illegible]	[illegible]	Pp 13	Level 5	[illegible]	[illegible]	
[illegible]	34	1505	324	184	162	513	188	45	22	0	[illegible]
[illegible] impressed	3	188	27	218	122	55	7	28	4		[illegible]
[illegible]	0	182	20	202	226	59	4	4	2	1	[illegible]
[illegible]	13	459	105	577	574	184	27	29	23	12	853
[illegible]	1	32	3	40	[illegible]	0	0	0	0	0	0
[illegible]	0	5	6	11	8	1	6	2	0	1	12
/ L	1	24	3	26	9	5	~~2~~	3	2	0	23
				2240							3568
smooth + [illegible]		26	[illegible]	36	26	12					11
moist + plat		22	2	24	7	1					1
folded / smooth		10	0	10	0	0					0
puddled		13	1	14	22	3					35
cut		2	0	2	14	9					24
crenelated		28	3	31	15	15(1)	0	1	1	0	33
[illegible]		2	1	3	9	2(12)	0	1		0	12
punctated	1	23	2	25	22						23
		6	19								
		12	1	12	10						0
sand [illegible]		4	1	5	3	1					3
plain		5	3	8	14	01					14
Cocoanut		3		3	21	1		1			13
Jar shape		7	9	12	18	1					19
woodland / Tampico	1	39	4	44	12				1		1
		0	13	84	8						

Type I: Woodland Cord Marked

Thesurface finishing is cordmarking of the type previously described. Though all shapes occur, three forms always have a cord marked surface finish. Plates occur with cord marking on the outside and usually with crenelated rims. Cocoanut shapes occur with all types of lips except curved lips and floded lips. Typical Woodland shapes also occur with all forms of lip decoration except side notched, folded, and flat smooth lips. The Tampico shape with its dominant punched lip decoration, and jar shapewithout lips, side notched and pinched or smooth lip decoration occur occasionally. Seed bowls with lips that fold inward occur. 3,978 sherds of this type have been found.

Type II: Lewis Cord Impressed

The cord impressed marking always occurred on one of two types of vessels, either vessels of the cocoanut type or vessels of the jar type. Vessels of the jar type are decidedly the most common and have a lip decoration of either side notches , or the lips have been smoothed and then pinched. The two sherds from a cocoanut shaped vessel show pinched decoration. 486 sherds of this type occur.

Type III: Lewis Smooth

The vessels having a smooth surface finish are usually of the seed bowl or the cocoanut form. However, plates and Tampico-shape pots did occur. The common seed bowl type of vessel always had a folded lip, while the cocoanut forms show a punched lip. Plates and the Tampico shaped sherds had lips usually crenelated. There are 1,427 sherds of this type.

North Trench —— Check

Level IV	P 709 ①	1071-1 1139 ③	-3 1005	-31 1078	35 1062
Texture					
Curves					
Thickness	½-1	-½-1		2-1	
Surface finish		2	2	15	28
C m				2	1
C I					
Ic	1-0		1C		
G		1		4	2
S		1		9	4
I	3			1	
Lips	auttler	Flat S-1			C-1

74

Level III	1135 ⑧	㉜ 1075	㊼ 1069	58 1068	33 1061	35 1060
Texture						
Thick	½5	1½ 3				
C M.	3	24	54	40	27	17
C I		2	4	4		
I/c						
G		2	5	4	1	
S	5	4	6	10	6	7
I		1				1
Lips			C-1 Pn	S-1	P-1	SH-1
adhesion		O-1				

236

Level II	1066 ⑧	⑦ 1047	⑪ 1139	⑫ 1079	⑤ 1073	19 1063
C M	6	6	6	12	13	14
C I		1		1		
I/c				1		
G	1		2		1	
S	1					
I			3	5	1	4
Lip	Flat			S-1		1
Ice	bowl.					

Level I	⑤ 1143	1 1032	1085	27 1076-74	1082 ⑨	1077-3 1131-7	1 991	2 1024	3 992	6 1021
C m	6	1	1	17	7	12		2	3	2
C I				1						
I c										1
G				4						
S	1			5	2	2	1	—		1
I										2
Lip		CC1	C-1 11-1							
Pee										

35
4

½
½
½
½
½
1
4.50
.7

13
2
17
175

43
31

65
14
4

64

78 32
12
44

2 2
283
79
10
23
42
59

496

22
1051
236
13
159
3
50

152

2 2
240
74
12
37
69
44

476

1 1
476
1512
496

2484

2 1
301
71
72
16
8
54

12

162

49
64
37
12
162

44
43
30
157

CM - 157
CI - 14
G 41
S 31
~~IIC~~ - 1
BI - 3

Lip Smith 2
Pn 2
C 1

Rein - 0 - 3
Cur - 1

0 51
2 1
8 4

Level II

	283-9	338-41	414-5	440-14	471-11	562-44	575-32	594-1	593-7	581-2	607-22	778-17	905 794 - out	802-5	907-18	909-47	
Kind of Temper	x 9	X - 41	x - 5		G-7 S-3	X-40-S-4	S-2-X29	S-1			X-19-S3						
Consistency	G-7 B2	G-38 B-3	G 5		G 9 B-1		G-26 B-4	G-1	- B-3		G 20 B-2				B-4		
thickness	-½-9	35 | 1½-2 | 1-4	½-4 1½ 1		7 | 1-2 | 1½ 1		½ 26 | 1-5	1-1			½ 21 | 1-1	½ 17			B-2		
Cord mark	5	27	2	6	6	30	2		4	1	15	9	4	2	34		166
cord imp.	1	3		1	1	3	2				2				2		15
Traced cord															~~15~~		0
groove	1	3	2	2	1	2	2			1	1	1		8	1		25
smooth	3	7	1	5	2	9	7	1	3		4	5	1	8	10		74
incised		1										2		2			3
Lips -	C-1				P-1	P 2 | C-1	B-1-P-1					Pn-1-S-1		S-1	C-3 | S1		C-5 | P-4 | S4 | Pn 1
Rims		C-1										C-1					C-2
Shapes.					over hang smooth							Sh-drawings					
odd things												0 -					0-1

1
47
26
30
35
138

3
2
8½
41
10½
1
5
4½
1.7½
3
4½
2½
2½
13
77

8

4
.56
138) 77.80
690
880
77

21
660
110
12
77
163
117
1039

3

140
166
72
393

2
55
24
44
64
40
47
274

42
22

12
18
0

2
165
15
25
35
282
198
480

100
10
1
18
60
179
150
429

234
8
16
72
150

59
14
42
23
10
147

7
18
15
17
22
10
38
44
29
50
373
148
421

1
59
14
32
10
73
143

Level IV

		(3)			(1)	(25)						
	260-(10)	272	458-(51)	197	470	477-(49)	559-33	898-13	892-8	899-42	~~[illegible]~~ 5 2	
Kind of Temper						(514)	S-9			135 | S-7	236	
Consistency										M-42		
Thickness	½9 | 1-1						½-33			32 31 | 1-5 | 1½-4	2 16.5	
Cord mark	6	2	35	1	21	37	26	4	2	26		160
Cord impressed	1		~~35~~	#	2~~X~~	1	1	1		1	7	
Trailed over cord									1		1	
[illegible]			3			3	2	1		2	11	
Smooth	1	1	13		2	8	3	7	4	13	52	
Incised	2						1		1		4 40	
Lip decoration		CL-1 P-1		C-1	Pn-1	S-2		Fluted lips		S-1	CL-1 | P.1 | C-1 | Pn-1 | S-3	
[illegible]	C-2 1 MM	1				1 M.M	-O-1 652 1		□-1			

cut lip outflare

Parallel fold in

1 drill point

Smooth lip but punched out

4½
1
16½
15½
5
6½

83|49 .5

83)49.20
41.5
7 50

3
65
37
20
6
26
165

2
240
249
64
37
12
402

31
1
32

2
49
69
37
12
23
185

1
134
283
79
96

2
54
8
16
72
150

1 1
1052
22 5
236
1513

1 1
185
237
75
497

1
50
1 3
159
13
25

1
54
42
23
10
134

312
71
150
533

XI — 915 — XI -45L1
XI — 924 — XI 40L2
X 928 11 45R2
941 9 40L2
950 8 45R3
I ——— 956 12 60L3
~~961 10 40L3~~
XI — p917 XI 45R3
XI — p975 XI 45R3
II ——— ✓ 977 13 45L3 — 2
III — P985 X.

	306-83	310-56	5563 264-13	363-50	65-92	371-115	373-109	376-32	~~[illegible]~~ 381-34	383-54	388-47	FxD-72	481-23	485-72	543-2 510-9	543-20	621 54	out 657 485 883 845	766-39	1048
Kind of Tools	X79 L4	X 50-S-6	X-3	X-45 S-5		X-102 | S-10 | S-1	X 97 | S-12	X 28 | S 4	X31 | S-3	S-3										
[illegible]	B 10	B9	G3	G	B 8	90 B 25	G 109	G25-3	27 | B 7	G-41 B5										
Thickness	69 / 13 | 1½-2	46 / 8 | ½ 2	½ 3	½ 39 | 1-11	/ 9	½-111 | 1-14	97 | 1-12 | 1½-4	½ 24 | 1-8	½ 30 | 1-4	½ 43 | 1-10 | 1½ 1	38 / 8 | 1½ 1	9 | 1½ 5		½ 58 | 1-13 | 1½-3							
[illegible]	51	30		30	61	45	65	17	23	2 37	29	42	13	53	2 66	12 30	23			-662
[illegible]	8	4	1	9	15	9	10	5	2	9	1	7	4	4	9	1 7	5			-110
[illegible] Tools		1			1						6					1				-12
[illegible]	6	6	1	5	7	5	9	3	4	2	3	1					1			-75
X [illegible]	15	10	10	5	8	12	19	7	5	6	5	8	2	4	2	4	4			-193
[illegible]	3	5		0		4	1				3	14	4	13	16	5 12	6			-16
[illegible] P = Pn C SH CL	S2 | Pn 1 | C 1	S 1 | Pn 1 | P 1		S1 | C 1	P1 | S1 | C1	Pn-2 | S-2 | C-1	Pn 2 | S2		Pn 1 | C-1	C-1	S-3 | Pn 2 | C-1	C-2		Pn 21 | C1 P2 | S1	C-5 | CL-1 S-1	S1 | P1	S1		=45	Pn-17 C [illegible] P-5 S-3 [illegible]
[illegible] → □	□-1 7-1	□ 3 | C-1 | O-1				O-3 | □-1	O-1				8-0 | 1-□					1-□				O-14 | □-7 | C-8
Shape	Seed [illegible] 1									Plate 1	1 ~ folded smooth - tip									

- 4a - on [illegible]

7 week on [illegible]

1
54
39
455
1048

51
8

125
300
812
1237

812
125
955
1892

[illegible]

23
429
480
1402
1047
159
16
50

2585

2
331
71
72
16
18
23
26
54

583

12
16
54
12

162

51
49

17½
14
7½
4½
3½
10

53

.57
.57
.64
.73

.57

.57
.64

.46 | 5.00
4.6

50

96

CVC I

1 1	Cal. Mary 975 42K1	970	967 FXI 45R2	928	924-41L2	915 45L1 FXI	888	749	490	464	442
	5	③	④	②	㊸	④	⑲	①	⑤	⑭	④
[illegible]	G② L①	G② C①	Mult ④	G②	S① Sa① G㊶	G④	G⑲	G①	G⑤	G⑬ skill①	G④
[illegible]	G③	G② B①	G④	G②	G㊶ ② ②	G④	G⑬ B⑥	G①	G⑤	G③ B⑪	G④
[illegible]	½③ 1④	1① ½②	½① 1②	1②	½⑭ 1㉙	½② 1②	½⑭ 1⑤	1①	½③ 1②	½⑥ 1⑧	1③
[illegible]	②	①	④	②	㉔	④	⑪	①	⑤	⑪	③
					①		①				
		①			⑤		⑦			④	①
		①									
					①						①
					water … th shale			water corn			

411 5	401 7	㉝ 332	④ 282	③ 249	⑥ 245	571-(74)	㊵ 881	886-9		287
G3	G② S①	G 32	G④	G③	G-6	G	G-36 S-4	-9		357-8 757-12 841-1
G3	G⑥ B④	G㉛ B②	④G	③③	G④-B②	G-64 B-8	13-6	G-9		
½① ½3	½④ ½②	½① ⑨ 1½⑨	④½	[illegible]	½5 1-1	½58 1-16	½37 1-3	½7 1-1 1½-1		
2	4	2 3	2	3	2	51	26	3		6+10
	1	2				2	3	1	11	
		1							1	
	3	6	2		1	16	8	3	6	1+3
1		2			3	5	3	2	=1	1
		三							0	
		②				1	1		0 6	
1							1		2	
						1	1		2	2

76
68
134
917

Level I

1a

Cat. No.	975 45R1 ⑥	970 ③	967 FXI 45R3 ④	928 ②	924-40L2 ㊸	915 45L1 FXI ④	888 ⑲	749 ①	490 ⑤	464 ⑭	442 ④
ds of Temp.	G③ L③	G② C①	Flint ④	G②	S shell ① Sand ① G ㊶	G④	G ⑲	G ①	G ⑤	G ⑬ shell ①	G ④
[illegible] G or B	G ⑥	G② B①	G ④	G ②	Ⓖ ㊶ Ⓑ ②	G④	G⑬ B⑥	G ①	G ⑤	G ③ B ⑪	G ④
Thickness ½, 1, 1½	½ ② 1 ④	1 ① 1½ ②	½ ① 1 ③	1 ②	½ ⑭ 1 ㉙	½ ② 1 ②	½ ⑭ 1 ⑤	1 ①	½ ③ 1 ②	½ ⑥ 1 ⑧ ⑪	1 ③ 1½ ①
Surface finish Cordmarked	⑥	①	④	②	㉞	④	⑪	①	⑤	⑪	③
impressed					①		①				
~~Trailed~~ cordmarked											
Smooth		①			⑧		⑦			④	①
Grass marked		①									
incised											
Lip					①						①

Lip
R = Punched
S = smooth
P = paddled
C = Crenelated
SN = scale notch
CL = cut lip

water worn sherds

water worn

5
3
150
6
7
2
43
4
20
5
14
4
10
33
7
6
74
40
9
429
-150
279

464	442	411	401	㉝	④	③	⑥	579 - (74)	㊵	886-9		— 2 89	76	977
(1 4)	④	3	7	332	282	249	245		881				68 134	
G ⑬ shell ①	G ④	G3	G ⑦ 50	G 32	G ④	G ③	G -6	G	G-36 S-4	G-9		357-8 757-12 841=1	37 7	
5 ③ B ⑪	G ④	G 3	G ② 84	G ㉛ 52	④ G	③ B	G ④-B ②	G-64 | B-8	13-6	G-9			78	
½ ⑥ 1 ⑧ ⑪	1 ③ 1½ ①	½ 3	1 ④ ½ ②	½ 1 ④ 1½ ④	④ ½	③	½ 5 | 1-1	½ 58 | 1-16	½ 37 | 1-3	½ 7 | 1-1 | 1½-1				
1	③	2	4	2 3	2	3	2	51	26	3		6+10		
			1	2				2	3	1	11			
				1							1			
④	①		3	6	2		1	16	8	3	6	1+3		
		1		2			3	5	3	2	21	1		
											0			
											0			
	①			②				1	1		6			
		1							1		2			
								1	1		2	2		

71
18
89
80

	306-83	310-56	5523 269-13	363-50	65-92	371-115	373-109	376-32	384
Kind of Temper.	X79 L4	X 50 - S-6	X-3	X-45 S-5		X-102 | S-10 | LS-1	X 97 | S-12	X28 | S 4	X31
Consistency	B 10	B9	G3	G	B8	90 - B25	G- 109	G25 - 2	27
Thickness	69 / 1-13 / $1\frac{1}{2}$-2 /	46 / 8 / $\frac{1}{2}$ 2	$\frac{1}{2}$ 3	$\frac{1}{2}$ 39 / 1-11	/ 9	$\frac{1}{2}$-111 / 1-14	93 / 1-12 / $1\frac{1}{2}$-4	$\frac{1}{2}$ 24 / 1-8	$\frac{1}{2}$ 30
cord marked.	51	30		30	61	45	65	17	23
Cord impressed	8	4	1	9	15	9	10	5	2
~~Cord marked~~ Trailed		1							
Surface finish Grass marked	6	6	1	5	7	5	9	3	4
Smooth	15	10	10	5	[illegible]	12	19	7	5
X Burnished	3	5		0		4	1		
Dec Lip – P, S, P_n, C, SN, LL	S^2 | P_n | C 1 /	S 1 | P_n 1 | P 1 /		S1 | C 1 /	P1 | S1 | C1	P_n-2 | S-2 | C-1	P_n 2 | S 2		P_n 1
Rim – O □ C	□1 | O-1	□ 3 | C-1 | O-1				O-3 | □-1	O-1		
Shape	Seed bowl 1								

5
83
56
50
92
115
109
32
38
34
47
22
23
13
20
135

-1 | 5	373-109	376-32	~~384~~ 384-34	383-54	388-47	FxD-72	481-23	485-12	510-9	543-20	621 54	6 485 882 845	766-39
10 | 45-1	X 97 | S-12	X28 | S 4	X31 | S-3	S-3									
B 2 5	G- 109	G25 -2 27	B 7	G-49 B5									
14	93 | 1-12 | 1½-4	½24 | 1-8	½30 | 1-4	½43 | 1-10 | 1½ 1	38 | 8 | 1½	9 | 1½ 5		½58 | 1-13 | 1½-3					
	65	17	23	½ 37	29	42	13	53	2 66	2	30	23	-66
	10	5	2	9	1	7	4	4	9	1	7	5	-110
					6	1					1	1	-12
	9	3	4	2	3	8	2	4	2		4	4	-77
	19	7	5	6	5	14	4	13	16	5	12	6	-193
	1				3								-16
S-2 | C-1	Pn2 | S2		Pn1 | C-1	C-1	S-3 | Pn2 | C-1	C-2		Pn2 | C1	C-5 | CL-1		S1 | P1	S1	±45 Pn-13
								P2 | S1	S-1				P-5
0-1	0-1				8-0 | 1-□						1-□ ?		0-14

plate 1

1- folded [illegible] tip

7 weeks on [illegible]

54
39
455
1047

51
8
6

1.25
300
812
1237

812
125
955
1892

– 4a – on [illegible]

51

110
12
77
163
16
378

Level IV

	260-⑩	③ 272	458-(51)	① 199	㉕ 470	477-(49)	559-33	890-13	892-8	899-42	~~7888~~
Kind of Temper						(S14)	S-9			135 | S-7	236
Consistency										M-42	
Thickness	½ 9 | 1-1						½-33			½ 31 | 1-5 | 1½-4	
Cord mark	6	2	35	1	21	37	26	4	2	26	165
Cord impressed	1		~~35~~	#	2	1	1	1		1	7
Trailed [illegible]	1								1		1
[illegible] marked			3			3	2	1		2	11
Smooth	1	1	13		2	8	3	7	4	13	52
Incised	2						1		1		4
Lip decoration		CL-1 P-1		C-1	Pn-1	S-2		Fluted lips	S-1		CL-1 | P-1 | C-1 | Pn-1 | S-3
Rims	C-2 1 MM	1				1 M.M	-0-1 652 1		□-1		

cut lip outflare

Paddle [illegible] in

1 [illegible] point

Branch lip but punched out

5
2

199

160

4½
1
16½
15½
5
6½
83 | 49 .6
83 | 49.00
498
7 50

4½

240
49
64
37
12
402

39
1
32

3
65
37
28
6
26
.15

2
49
64
37
12
23
185

2
54
8
16
72
150

1
134
283
79
96

1
185
237
75
497

1
50
1 3
159
13
25

1 1
1052
225
236
1513

1
54
42
23
10
134

312
71
150
533

XI — 915 — XI - 45L1

XI — 924 — XI 40L2

X 928 11 45R2

941 9 40L2

950 8 45R3

I ——— 456 12 60L3

~~961 10 40L3~~

XI — p917 XI 45R3

XI — p975 XI 45R3

II ——— ✓ 977 13 45L3 — 2

III — P985 X.

778-?	aos 796-out	802-5	907-18	909-47	
			B-4 B-2		
½17 9		4	2	34	166
				2	15
				[illegible]	0
1			8	1	25
5		1	8	10	74
2			[illegible]		3
Pn-1-S-1 C-1 O-1			S-1	C-3 | S1	C-5 | P-4 | S4 | Pn-1 C-2 O-1
卐-dr[illegible] O-					

1
47
26
30
35
138

8

3
2
8½
41
10½
1
5
4½
17½
3
4½
3½
2
1½
13
77

.56
138)77.00
69 0
8 00
8 28

77

21
660
110
12
77
163
17
1039

3

1 40
~~186~~
72
393

2
55
24
44
64
40
42
274

42
2
1
18
0

24
8
16
~~72~~
150

1 2
165
15
5
24
3
282
198
480

190
10
18
60
279
150
429

Level III

	283-9	338-41	414-5	440-14	471-10	562-44	575-32	594-1	593-7	581-2	607-22	778-[illegible]	805 790 -out	802
Kind of Temper	< 9	X -41	x-5		G-7 S-3	X-40-S-4	S-2-X29	S-1			X-19-S-39			
Consistency	G-7 B2	G-38 B-3	G 5		G-9 B-1		G-26 B-4	G-1	-B-3		G20 B-2			
Thickness	-½-9	35 | 1½-2 | 1-4	½-4 1½ 1.		7 | 1-2 | 1½ 1		½ 26 | 1-5	1.1			½21 | 1-1	½17		
Cord mark	5	27	2.	C	6	30	2[illegible]		4	1	15	9		4
cord imp.	1	3		1	1	3	2				2			
Trailed/cord														
groove	1	3	2	2	1	2	2			1	1	1		
Smooth	3	7	1	5	2	9	7	1	3		4	5		1
Incised		1										2		
Lips -	C-1				P-1	P2 | C-1	B-1-P-1					Pn-1-S-1		
Rims		C-1										G-1		
S. shapes					over hang smooth							S-[illegible]		
other things												o -		

59
14
41
23
10
147
18
55
22
10
34
44
29
50
273
148
421

1
54
[illegible]
10
10

Lewis Ceramics

Re-or [illegible] No. 8003A Folder